In the claims:

- 1. (currently amended) An instrument for removing a tissue sample from a subject, the instrument comprising a housing, said housing comprising a plurality of tissue sampling devices, each of said devices comprising an isolated chamber, wherein each of said devices is independently controlled controllable to open the isolated chamber for receipt of a tissue sample.
- 2. (original) The instrument of claim 1, wherein said housing comprises an interior lumen, said lumen comprising a deployment control element.
- 3. (original) The instrument of claim 2, wherein said chamber does not communicate said tissue sample to said interior lumen.
- 4. (original) The instrument of claim 1, wherein said housing is solid and wherein a deployment control device is embedded in or located on an exterior surface of said housing.
- 5. (original) The instrument of claim 2, wherein said deployment control element emits an electrical, optical, pneumatic, hydraulic, RF- transmitted, inductive, magnetic, thermal or sonic signal.
- 6. (original) The instrument of claim 4, wherein said deployment control element emits an electrical, optical, pneumatic, hydraulic, RF- transmitted, inductive, magnetic, thermal or sonic signal.
- 7. (original) The instrument of claim 2 or 4, wherein said deployment control element comprises a heating element and wherein said chamber comprises a heat conductive cover element.
- 8. (original) The instrument of claim 1, wherein the tissue sampling devices are radially disposed about the instrument.

- 9. (original) The instrument of claim 1, wherein the plurality of tissue sampling devices are positioned in an array along the length of the instrument.
- 10. (original) The instrument of claim 1 wherein the plurality of tissue sampling devices are fixed in a position along an outside diameter of an exterior face of the instrument.
- 11. (original) The instrument of claim 1, wherein a sampling device of said plurality comprises a set of jaws activated by an expandable volume to mechanically actuate and collect a sample.
- 12. (original) The instrument of claim 1 wherein the tissue sampling devices include vacuum sampling chambers.
- 13. (withdrawn) The instrument of claim 1 wherein the tissue sampling devices include a mechanical cutting sampling device.
- 14. (withdrawn) The instrument of claim 13, wherein said mechanical cutting device comprises a sleeve, said sleeve being located exterior to said chambers.
- 15. (withdrawn) The instrument of claim 14, wherein said sleeve comprises a sealing element.
- 16. (original) An instrument for removing a tissue sample from a subject, the instrument comprising a housing, said housing comprising a plurality of tissue sampling devices, each of said devices comprising an isolated chamber, wherein the volume of said chamber ranges from 0.001 to 1 cubic millimeter.
- 17. (currently amended) A method of extracting multiple tissue samples from a subject, comprising

inserting into the subject an instrument comprising a plurality of independentlycontrolled controllable tissue sampling devices on a housing, each of said sampling devices comprising an isolated chamber; contacting a sampling device with deployment signal, said signal being selected from the group consisting of an electrical, optical, pneumatic, hydraulic, RF- transmitted, inductive, magnetic, thermal or sonic signal, said signal causing an opening of said chamber; removing a tissue sample from an anatomical location adjacent to said chamber; and

- 18. (original) The method of claim 17, wherein said sampling devices are deployed simultaneously.
- 19. (original) The method of claim 17, wherein each of said sampling devices is deployed temporally.
- 20. (original) A method of extracting multiple tissue samples from a subject, the method comprising:

inserting the instrument of claim 1 into the subject;

sealing said chamber.

heating the plurality of sampling devices, heating causing actuation of a mechanical portion of the plurality of sampling devices, such that a mechanical portion of the sampling devices collects a sample and retains the sample;

depositing the sample into a local chamber; and removing the instrument from the subject.

- 21. (original) The method of claim 20, wherein heating comprises passing electrical current through a portion of the extracting device.
- 22. (original) The method of claim 20, wherein collecting and retaining the sample comprises applying a differential pressure to the local chamber and sucking the sample into the local chamber.
- 23. (original) The method of claim 20, further comprising ejecting the samples by pressurizing the chamber.

- 24. (original) The method of claim 20, wherein collecting and retaining the sample comprises scooping the sample from the subject by pivoting a scoop from a rest position after heating the scoop.
- 25. (original) The method of claim 20, wherein collecting and retaining the sample comprises expanding a volume of a fluid in a chamber and causing a set of jaws to deploy from the chamber.
- 26. (original) The method of claim 20, further comprising imaging a location of the sample fiberoptically.